We claim

1. Process for preparing a solid material for use as catalytic material in an epoxidation reaction, the solid material containing at least one zeolite and being at least partially crystalline, wherein a step (I) of an at least partial crystallization of at least one solid material containing at least one zeolite out of a synthesis mixture involves at least one partial step of contacting at least one transition metal oxide source with at least one epoxide or hydrolysate thereof prior to or during the at least partial crystallization of said synthesis mixture into said solid material, and wherein the at least one epoxide is the product of said epoxidation reaction.

2. Process according to claim 1, characterised in that step (I) comprises at least the following partial steps

   (Ia) mixing at least one hydrolyzable silicon source with a mineralizing and/or structuring agent and water;

   (Ib) mixing at least one transition metal oxide source with an epoxide or a hydrolysate thereof;

   (Ic) mixing the mixtures from (Ia) and (Ib) so that at least a part of the hydrolyzable compounds hydrolyzes;

   (Id) distilling at least part of the alcohol that has been formed as a result of the at least partial hydrolisation of at least part of the hydrolyzable compounds;

   (Ie) adding water to the bottom of (Id);

   (If) reacting the synthesis mixture resulting from (Ie) at a temperature elevated with respect to room temperature.

3. Process according to claim 2, characterized in that the hydrolyzable silicon source comprises at least one silicon oxide, the mineralizing and/or structuring agent comprises at least one tetraalkylammonium hydroxide, and the transition metal oxide source comprises at least one titanate.

4. Process according to claim 3, characterized in that the hydrolyzable silicon source comprises at least tetraethoxy silicate, the mineralizing and/or structuring agent comprises at least tetrapropylammonium hydroxide, the transition metal oxide source comprises at least tetrabutylorthotitanate and the epoxide or the hydrolysate thereof comprises at least propylene oxide or propylene glycol.

5. Process according to any one of claims 1 to 4, characterized in that the at least one zeolite belongs to at least one of the following structure classes: MFI, MEL, MWW, BEA or any mixed structure thereof.

6. Process according to any one of claims 1 to 5, step (I) of the at least partial crystallization resulting in a mixture (I) containing at least said solid material and a mother liquor, said process further comprising the step

(II) separating and/or concentrating the solid material in mixture (I).

7. Process according to claim 6, characterized in that, after step (II), at least one of the following two additional steps is performed:

(W) bringing the solid material from step (II) in contact with a composition containing water;

(III) agglomerating or granulating or agglomerating and granulating the solid material from step (W) or from step (II).

8. Process according to claim 7, characterized in that, after step (W), the solid material is separated from at least part of the composition containing water.

9. Process according to claim 6, optionally comprising the step

(III) agglomerating, or granulating, or agglomerating and granulating the solid material from step (II);

said process further comprising the step

(S) shaping the solid material from step (II) or (III) obtaining a shaped body.

10. Process according to claim 9, characterized in that the following step (W) is performed after step (II), or after step (S), or after step (II) and after step (S)

(W) bringing the solid material from step (II) or the shaped body from step (S) in contact with a composition containing water.

11. Process according to claim 9 or 10, characterized in that step (S) is selected from the group consisting of pelletizing, pressing, extruding, sintering, roasting, and briquetting.

12. Process according to claim 11, characterized in that before, or during, or before and during the step (S), a binding material is added to said solid material.

13. Process according to any one of claims 6 to 12, characterized in that after at least one of the steps (II), (W), (III) or (S), a step (C) of calcining the solid material, or the shaped body, or the solid material or the shaped body is performed.

14. Process according to claim 13, characterized in that step (C) is performed at temperatures higher than 400°C.

15. Process according to any one of claims 6 to 14, characterized in that the process is an integrated process.

16. Solid material containing at least one zeolite for use as catalytic material in an epoxidation reaction, the solid material being obtainable by a process of treating a synthesis mixture, wherein a step (I) of an at least partial crystallization of at least one solid material containing at least one zeolite out of a synthesis mixture involves at least one partial step of contacting at least one transition metal oxide source with at least one epoxide or hydrolysate thereof prior to or during the at least partial crystallization of said synthesis mixture into said solid material, and wherein the at least one epoxide is the product of said epoxidation reaction, said step (I) comprising at least the following partial steps

(Ia) mixing at least one hydrolyzable silicon source with a mineralizing and/or structuring agent and water;

(Ib) mixing at least one transition metal oxide source with an epoxide or a hydrolysate thereof;

(Ic) mixing the mixtures from (Ia) and (Ib) so that at least a part of the hydrolyzable compounds hydrolyzes;

(Id) distilling at least part of the alcohol that has been formed as a result of the at least partial hydrolisation of at least part of the hydrolyzable compounds;

(Ie) adding water to the bottom of (Id);

(If) reacting the synthesis mixture resulting from (Ie) at a temperature elevated with respect to room temperature.

17. Solid material according to claim 16, characterized in that the solid material contains Ti.

18. Solid material according to claim 16 or 17, characterized in that the solid material is shaped into a shaped body.